CLAIMS

01-. What I claim as my invention is a cam actuated piston/plunger type cylindrical shaped valve operating in a reciprocal fashion, installed in a companion cylinder and working in conjunction with ported passages in the valve cylinder wall to open and close related air passages that govern the intake and exhaust functions of a multi-valve internal combustion engine.

02- The piston/plunger valve described in claim 1 is comprised of a piston/plunger fitted to a separate ported liner and installed in the engine as a replaceable unit.

03-The invention described in claim 1 is installed in the working cylinder head of overhead valve design engines

04-The invention described in claim 1 is installed in the block of side valve design engines.

05-The piston/plunger valve described in claim 1 is cam actuated using a cam lobe shaped where the high point of the lobe provides and maintains positive valve movement to the closure position and the low point of the cam lobe permits the valve under spring tension to move to the open position.

06-The piston/plunger valve described in claim 1 is actuated by direct cam action or through a levered arrangement.

07- The piston/ plunger valve described in claim 1 uses valve diameter sizes in overhead designs that extend the valve edge past or outside the bore area of the working piston.

08-The piston/plunger described in claim 1 uses valves sized to fit within the bore area of the working piston in overhead designs.

09-The piston/plunger described in claim 1 is fitted with 1 or more snap type piston rings of gap sealing design where the gap area and wall area are both sealed.

10- The piston/plunger and liner described in claim 2 are made of metal.

11- The piston/plunger and liner described in claim 2 are made of material other than metal.

12-The piston/plunger described in claim 1 and 2 is of a solid cylindrical design.

13-The piston/plunger described in claim 1 and 2 is of a skirted design.

14-The piston/plunger described in claim 1 and 2 is hollow with a closed end facing the combustion area of the working piston.